Part C: Other Reuse

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12. Other Regulatory Requirements Associated With Wastewater Land Application Facilities

This handbook focuses on applying wastewater to the land surface and the permit program that manages this land use activity. However, while issuance of a wastewater-land application permit is essential, it is also important for permittees and their consultants to be aware of other relevant environmental considerations associated with a given wastewater-land application site and system to knowledgeably plan and anticipate issues of concern.

An overview of the "big environmental picture" associated with a land application system involves many interrelated issues, such as protection of public health and public safety, prevention and resolution of nuisances, protection of ground water quality, and conservation of ground and surface water supplies to name a few. Most issues or potential sources of contamination are managed by programs that may either be: (1) regulatory, or those based on numerical standards, narrative standards, rules, permits or other mandated features, or (2) non-regulatory, or those based on guidance, management strategies, education and technical assistance or other voluntary efforts suited to the potential source(s) of contamination.

The wastewater-land application permit is just one of several that need to be considered by each company before doing business in Idaho. In addition to the wastewater-land application permit, each permittee should consider the full complement of applicable state and local rules and regulations for the jurisdiction in which their wastewater-land application facility is located. While the Department of Environmental Quality (DEQ) wastewater-land application permit assures the WLAP permittee that the wastewater-land application treatment system has been approved for operation, the WLAP permit is not intended to imply compliance with other local and state rules or regulations.

A list of relevant environmental considerations has been compiled as an informational tool for the WLAP applicant and permittee. This list includes local, state and federal requirements and is not intended to be exhaustive for every location in the state or to distinguish which requirements apply to new facilities versus modifications on existing facilities, but rather provides general information to help direct the permittee to the appropriate contact agencies.

12.1 Domestic Sewage Disposal

Sanitary wastes or domestic sewage wastes generated by a facility can be included with the industrial waste stream and land applied. If combined with industrial wastewater, the sanitary wastes must be addressed as part of the wastewater-land application system permit. Combined sanitary and industrial

waste streams typically have to meet the buffer zone distances for municipal wastewater.

If the sanitary wastes are disposed of separately from the wastewater-land application treatment system, then the method of treatment determines the contact agency. If an individual or community subsurface sewage disposal system (septic tank/drainfield) is the treatment method of choice, then the local District Health Department should be contacted for permitting requirements. Application must also be made and a replacement permit issued by the District Health Department in the event of a subsurface sewage system failure.

If an above ground sewage disposal system, such as a lagoon or connection into a municipal sewage plant, is the treatment method of choice, then DEQ should be contacted.

12.2 Plan and Specification Reviews

Idaho Code 39-118 states that all plans and specifications for the construction of new sewage systems, sewage treatment plants or systems, other waste treatment or disposal facilities, public water supply systems or public water treatment systems or for modification or expansion to existing sewage treatment plants or systems, waste treatment or disposal facilities, public water supply systems or public water treatment systems, shall be submitted to and approved by DEQ before construction begins. This review can be coordinated through the land application permit process for new systems.

12.3 Non-Contact Cooling Water

The Wastewater-Land Application Permit Regulations' definition for wastewater (IDAPA 58.01.17.200.19) specifically excludes non-contact cooling water as a component of wastewater and as such, non contact cooling water is not included in the wastewater loading conditions of the WLAP permit. However, a permit to discharge non-contact cooling water to surface water is required by the *National Pollutant Discharge Elimination System* (NPDES) Program administered by EPA. Non-contact cooling water may be used as a supplemental source of irrigation water and as such may be applied to some or all of the same fields as the wastewater is being land applied. Non-contact cooling water may also be discharged into shallow or deep underground injection wells in accordance with the *Rules for Construction and Use of Injection Wells* as administered by the Department of Water Resources (IDAPA 37.03.03).

12.4 Water Appropriations and Allocations

Long term use of water supplies requires receipt of specific water rights from the Idaho Department of Water Resources. Water rights should be obtained for every

domestic or irrigation well. Established water rights may benefit a facility or permittee, particularly if competing uses for the same water becomes an issue at some point in time. If irrigation water is derived from a reservoir and canal (surface water) system rather than ground water wells, then the water rights reside with the owner or owners' designee for a privately owned surface water system or, with the Bureau of Reclamation for a federal reclamation irrigation project. The Bureau of Reclamation or private owner contracts with the irrigation district(s) for the water stored in the reservoir and the irrigation districts then contracts with individual property owners. Magic Reservoir or Mackay Reservoir are two examples of privately owned reservoir systems, while Cascade Reservoir is an example of a federally administered project.

Many wastewater-land application sites and systems also need a source of fresh water to supplement the wastewater being applied for crop production. If supplemental water is needed for the system, then documentation of an established water right should be submitted with the wastewater-land application permit application.

12.5 Disposal of Truck Wash Sand & Grit Sumps, Grease Traps and Other Miscellaneous Small Volume Waste/Wastewater

Wastes generated by truck washing operations or maintenance shops typically originate from sand and grit sumps, which need periodic cleaning and disposal. Likewise, grease and other floatable wastes are often separated from the main waste stream and collected in a grease trap, which needs routine maintenance and cleaning. This type of small volume waste may be addressed as part of the wastewater land application permit if desired by the permittee. When combined as part of the wastewater land application permit, the permittee is responsible for submitting pertinent information on any miscellaneous small volume waste or wastewater as part of the WLAP permit application materials to DEQ.

If the miscellaneous small volume waste/wastewater is disposed of separately from the wastewater-land application treatment system, then often those wastes are physically pumped from some type of holding area into a watertight tank truck or equivalent and transported to a location off site approved for treatment and disposal.

12.6 Sludge Management

Municipal sludge must be managed according to 40 CFR Part 503-*Standards for the Use and Disposal of Sewage Sludge*. Requirements reflecting these rules are a part of every NPDES permit issued by EPA to a publicly owned wastewater treatment plant. Municipalities should be in contact with DEQ for approval of sludge treatment and disposal methods.

Industrial sludge is exempted from the requirements of 40 CFR Part 503. Instead, industrial sludge is managed in accordance with the *Water Quality Standards and Wastewater Treatment Requirements* (IDAPA 58.01.02.650) administered by DEQ or by the District Health Departments if the industrial sludge meets the definition of a non municipal solid waste.

12.7 Discharges to Surface Waters

The National Pollutant Discharge Elimination System (NPDES) program was established by Section 402 of the Clean Water Act. An NPDES permit is required for any direct discharge to surface (navigable) waters of the state or waters of the United States from new or existing sources.

Since EPA has permitting authority for the NPDES program in Idaho, the EPA Idaho Operations Office in Boise should be contacted for permitting information on any type of point source discharge from a facility. EPA then coordinates with DEQ for regional input on each NPDES permit issued.

12.8 Designated Special Resource Waters or Sole Source Drinking Water Aquifers

On January 1, 1995, the Spokane Valley-Rathdrum Prairie Aquifer was designated as a special resource *ground* water in Idaho. A special guidance document has been developed that has specific recommendations for wastewater-land application treatment systems on this aquifer. The *Special Supplemental Guidelines for Spokane Valley-Rathdrum Prairie Aquifer Wastewater Land Application* can be found in the appendix. This guidance is intended to work in conjunction with the Wastewater-Land Application Permit Regulations and other guidance Editors note: If there is inconsistency, we ought to fix it before the web version comes out.

Existing permitted facilities, or entities anticipating applying for a WLAP permit that will be located over the Spokane-Valley Rathdrum Prairie Aquifer, should direct questions to DEQ's North Idaho Regional Office in Coeur d'Alene at (208) 769-1422.

12.9 Ongoing Education

To maximize ground water protection while achieving and maintaining the most efficient and cost effective wastewater-land application treatment system requires ongoing education. It is important that the public and regulated community is informed about the reasons for preventing contamination, the activities of a land application system that may lead to ground water contamination and ways to prevent ground water contamination from a specific and unique land application site. An informed public and regulated community are more likely to work

together to prevent contamination voluntarily and without the need for as much regulatory oversight.

Participating in educational opportunities should help to inform and enhance networking for both industry and the state. Currently, classes and conferences on issues related to the land application of wastewater are available from a variety of sources, including DEQ and as well as contractors. Other educational opportunities exist through the individual or joint efforts of DEQ and the regulated community such as bringing technical expert(s) in periodically to teach classes or seminars on Land Application of Wastewater or related topics such as how land application activities can impact ground water or finding the balance between resource protection, economic development and societal needs.

12.10 Reference

Idaho Division of Environmental Quality. January 1995. Special Supplemental Guidelines: Spokane Valley-Rathdrum Prairie Aquifer Wastewater Land Application. 18 pages.

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